REMARKS/ARGUMENTS

Claims 1-20 are in the application. Claims 1-8, and 12-14 have been rejected by the examiner. Claims 9-11 and 15-17 have been objected to. Claims 18-20 are subject to restriction and/or an election requirement. Applicant hereby confirms the provisional election made by telephone interview without traverse to prosecute Claims 1-17 and withdraw Claims 18-20 from further consideration. The application has been amended as set forth above. Reconsideration is respectfully requested.

Claim Rejections - §102

The examiner has rejected Claims 1-4, 7, 8 and 12-14 under 35 U.S.C. §102(a) as being anticipated by the foreign patent publication of Ri et al. For the following reasons, Applicant respectfully submits that these rejections are unsupported by the art and therefore should be withdrawn.

MPEP §2121.01 provides:

> "In determining what quantum of prior art disclosure which is necessary to declare an applicant's invention 'not novel' or 'anticipated' within section 102, the stated test is whether a reference contains an 'enabling disclosure' ...." *In re Hoeksema*, 399 F.2d 269, 158 USPQ 596 (CCPA 1968). A reference contains an "enabling disclosure" if the public was in possession of the claimed invention before the date of invention. "Such possession is effected if one of ordinary skill in the art could have combined the publication's description of the invention with his [or her] own knowledge to make the claimed invention." *In re Donohue*, 766 F.2d 531, 226 USPQ 619 (Fed. Cir. 1985).

Contrary to the examiner's statement that Ri et al. anticipates certain of Applicant's claims, Ri et al. does not contain an enabling disclosure, so all rejections based on this reference are unsupported by the art and should be withdrawn. Ri et al. is a publication of a Japanese application. The English translation provided with the Office Action fails to enable one of ordinary skill in the art to practice Applicant's claimed invention. The translation provides confusing references to an "organic system resin" as a insulation film on a wafer, a "water-soluble inorganic compound particle", and a "non-water dispersion medium". Although there is reference to a slurry, it is unclear whether the slurry uses water or the "non-water dispersion medium" as the slurry carrier. ([0010] Line 1: "to distribute a water-soluble inorganic compound particle in a non-water dispersion medium according to the slurry for polish of this invention." Is water or a non-water dispersion medium the slurry carrier?) Due to the confusing references to various elements and the questionable relevance of the problem solved by Ri et al. (i.e. a slurry composition) to the problem solved by Applicant (i.e. a method including disposing a volume of a nonaqueous solvent for enhancing selective removal of residue and reaction products), it is clear that the public was not in possession of Applicant's invention as a result of the disclosure in Ri et al.

Moreover, Ri et al. at best discloses an abrasive compound for polishing semiconductor wafers. The compound appears to be described as being "distributed" in a non-water (nonaqueous?) dispersion medium. This disclosure does not enable one of ordinary skill in the art to, according to Claims 1 and 12, dispose a volume of a nonaqueous solvent onto a semiconductor wafer while polishing the wafer with a polishing pad. Due to the lack of an enabling disclosure, Ri et al. cannot support any rejection of any claims.

Furthermore, Ri et al. fails to set forth each and every element of Applicant's claims. MPEP §2131 provides:

> "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as contained in the ... claim" *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim.

Ri et al. does not anticipate Claim 1 or Claim 12 because it does not disclose disposing a volume of a nonaqueous solvent. Rather, Ri et al. discloses use of a polishing agent, specifically a slurry of a water-soluble inorganic compound particle. As pointed out above, it is unclear whether the carrier for the slurry is actually water or the non-water dispersion medium which is disclosed as distributing the water-soluble inorganic compound particle. In any event, Ri et al. does not provide a step that includes disposing of only a volume of the non-water dispersion medium during CMP. Ri et al. thus fails to arrange the recited elements, to the extent they are even similar, exactly as required by Applicant's claim.

Similarly, Claim 2 is not anticipated because it recites two disposing steps, one of a volume of an aqueous slurry, the other of a volume of a nonaqueous solvent. To the extent Ri et al. discloses disposing a volume of any liquid, it is only for a slurry mixture. Claim 3 is not anticipated because it is dependent on Claim 1 and, as pointed out above, Claim 1 is not anticipated by Ri et al.

In addition to the base Claims 1 and 12 not being anticipated by Ri et al., Claims 7, 8, 13 and 14 are also not anticipated by Ri et al. because the prior art reference does not disclose inclusion of an ammine or dimethylsulfoxide (DMSO) as a nonaqueous solvent. Ri et al. discloses only various alcohols as a "non-water dispersion medium". In light of the foregoing, Ri et al. clearly fails to disclose an identical method as claimed by Applicant in as complete detail as contained in each of Applicant's claims, and arranged as required in the claims. Thus, the rejection of claims on this basis is unsupported by the art and the rejections should be withdrawn.

Claim Rejections - §103

The examiner has rejected Claims 5 and 6 under 35 U.S.C. §103 as being unpatentable over Ri et al. in view of Kimura. For the following reasons, Applicant respectfully submits that these rejections are unsupported by the art and therefore should be withdrawn.

The examiner has failed to establish a prima facie case of obviousness. MPEP §2142 provides:

> The examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of non-obviousness.

For all of the reasons stated above, Ri et al. also cannot support an obviousness rejection. Because Ri et al. fails to include each and every element of the underlying and intervening claims for Claims 5 and 6, the modification of Ri et al. in view of Kimura, contrary to the examiner's statements, does not disclose each and every element of Claims 5 and 6.

In addition, the modification suggested by the examiner fails to consider the subject matter claimed as a whole, and thus each and every element of the claimed invention is not provided in that modification. The elements recited in Claims 5 and 6 are more than "result effective

variables" as suggested by the examiner. The disclosure in Kimura regarding chemical and mechanical polishing variables is stated generically in order to include within its scope various CMP techniques that would be known to one of ordinary skill in the art without needing to describe the known techniques. In complete contrast, Applicant discloses a technique that is not included within the scope of the generic disclosure of known factors in the CMP process.

Neither Claim 5 nor Claim 6 disclose a "composition of a solvent", as suggested by the examiner, that would be made according to the result effective variables. Rather, Claim 5 discloses a method of polishing in which the "weight % of said nonaqueous solvent in said aqueous slurry/nonaqueous solvent mixture" is increased "*during* said polishing". The variables and factors disclosed in Kimura are all taken into consideration *prior to* actual polishing in order to select a known polishing technique. Claim 5, in contrast, recites a discrete step in a polishing technique that is entirely independent, in and of itself, of the variables and factors disclosed by Kimura. Similarly, Claim 6 recites an end point for the increasing step disclosed in Claim 5, and thus as claimed is also is independent of the Kimura variables.

Although the Kimura variables may be "result effective" with regard to the *rates* for the increasing step in Claims 5 and 6, these claims do not disclose rates of increasing, only the increasing step itself, which, in the context of Claims 5 and 6, is not a "result effective variable". As a result, it would not be obvious to one of ordinary skill in the art to modify Ri et al. in view of the "result effective variables" disclosed in Kimura to perform the increasing steps recited in Claims 5 and 6. Thus, Ri et al. in view of Kimura cannot support an obviousness rejection of these claims, and the rejections should be withdrawn.

Finally, in addition to all of the foregoing, Ri et al. is not valid prior art for purposes of §102(a) and thus cannot be used to support rejections for either anticipation or obviousness. Ri et

al. was published on May 22, 2001. Although Applicant's filing date (and thus presumptive date of invention) is August 30, 2001, the actual date of invention can be established by Applicant to be at least as early as March 7, 2001 as a result of an invention disclosure document submitted by the inventor to Applicant. In the event the examiner is not persuaded by the above remarks showing that the anticipation and obviousness rejections are unsupported by the cited art, Applicant reserves the right to submit as evidence of prior invention the invention disclosure document accompanied by an appropriate affidavit under 37 C.F.R. §1.131 executed by the inventor swearing behind the effective date of the prior art cited as the basis for these rejections.

Claim Objections

The examiner has objected to Claims 9 and 15 for incorrectly writing a claim element. Each of Claims 9 and 15 have been amended as set forth above to write the claim element properly, and Applicant respectfully requests the objections on this basis be withdrawn. The examiner has further objected to each of Claims 9-11 and 15-17 as being dependent upon a rejected base claim. The examiner states that these claims would be allowable if rewritten in independent form including all of the limitations of the base claim and intervening claims. In light of the above remarks weighing in favor of the removal of each of the rejections of the base claims and intervening claims, Applicant respectfully requests the objections on this latter basis be withdrawn. Nevertheless, Applicant reserves the right to rewrite these claims as suggested by the examiner in the event the examiner is not persuaded otherwise regarding the claim rejections.

Conclusion

It is respectfully submitted that all claims are in condition for allowance. Accordingly, prompt and favorable examination is earnestly solicited.

Respectfully Submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION

The paragraph beginning on line 13 of page 9:

-- Nonaqueous solvents which can be utilized in the present invention include organic solvents, such as, alcohols, hydrocarbons, or halogenated hydrocarbons. However, it should be understood that inorganic nonaqueous solvents can also be employed in the present invention. Specific nonaqueous solvents which can be used in the present invention include ~~dimethylsulfoxide (DMSO), [Nnpropanalamide]~~ N,N-propanalamide, ~~analine,~~ N,N-dimethylanaline, and ammines. Preferably, the nonaqueous solvent utilized in the present invention is polar rather than nonpolar. --

IN THE CLAIMS

Claim 9:

-- The method of claim 1, wherein: said nonaqueous solvent includes [Nnpropanalamide] N,N-propanalamide. --

Claim 15:

-- The method of claim 12, wherein: said nonaqueous solvent includes [Nnpropanalamide] N,N-propanalamide. --

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